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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,121	03/15/2001	Daniel Lieberman	7544-PA03	4629

7590 05/20/2002

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EXAMINER

KIM, PAUL D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 05/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/809,121

Applicant(s)

LIEBERMAN, DANIEL

Examiner

Paul D Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 9-13, 18-21 and 26-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 14-17 and 22-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This office's action is a response to the restriction requirement filed on 3/12/2002.

Examiner's Comments

2. Pursuant to a telephone conversation on 4/27/2002, the examiner needs to further restrict the elected claimed invention of Group I on Paper # 3 filed on 3/12/2002 to clearly define the invention.

Election/Restrictions

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-25, drawn to a method for the formation of a radio frequency antenna of a predetermined pattern, classified in class 29, subclass 600.
 - II. Claims 26-30, drawn to a radio frequency antenna, classified in class 343, subclass 700.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions Group I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as one printing a circuit pattern on a substrate to form an antenna.

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5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A, drawn to Fig. 7, claims 9-13 and 18-21.

Species B, drawn to Fig. 10, claims 22-25.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1-8 and 14-17 are generic claims.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

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showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. During a telephone conversation with Mr. McClain on 4/27/2002 a provisional election was /made with traverse to prosecute the invention of Species B, claims 1-8, 14-17 and 22-25. Affirmation of this election must be made by applicant in replying to this Office action.

8. Applicant's election of Species B is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

9. Claims 9-13 and 18-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 3.

Specification

10. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: A METHOD FOR THE FORMATION OF RF ANTENNAS BY DEMETALLIZING.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-8, 14-17 and 22-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1: The limitation "the formation of a radio frequency antenna" in line 1 lacks antecedent basis. The phrase "applying a metal layer...said antenna" in lines 3-6 is vague and/or indefinite. It is unclear as to exactly what makes up the portion of the metal layer to be removed. As claimed, the portion comprises all metal other than metal of the metal layer.

Claim 2: The limitation "said surface areas" in line 2 and "said antennas" in line 3 lack antecedent basis. The limitation "said substrate comprises a plurality of ... said surface areas" in lines 1-5 renders vague and indefinite. According to claim 1, line 2, there is only one surface of the substrate. It is unclear so as to remove the portion of the metal layer within each of said surface areas. It is also unclear so as to form a plurality of the antennas with each antenna of said plurality being disposed within a respective one of said surface areas since there is only one antenna formed according to claim 1.

Claim 8: Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group,

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recites members as being "selected from the group consisting of A, B and C." See Ex parte Markush, 1925 C.D. 126 (Comm'r Pat. 1925). When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. Therefore, the recitation "said web material comprises... film or paper" in lines 1-2 should change to " said web material is selected from the group consisting of a film or paper" is a proper limitation. (See MPEP 2173.05 (h)).

Claim 15: The limitation "said demetallization forms antennas" in line 1 lacks antecedent basis.

Claims 16 and 17: The limitation "different types of antennas" and "the same type of antenna" in line 1 renders vague and indefinite. It is unclear so as to be what the types are indicated. Are they forms or shapes or materials?

Claim 22: The limitation "the demetallized web" in lines 1-2 lacks antecedent basis.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-6 and 14-17 are, as best understood, rejected under 35 U.S.C. 102(b) as being anticipated by Horne (US PAT. 5,861,226).

Horne '226 teaches a method of fabricating a resonant micromesh filter having conductive antenna elements comprising steps of: applying a metal layer (54) on a dielectric substrate (52) (see Fig. 15-18); and removing the metal layer (exposed part 108, for example) to form an antenna array (see Fig. 1-5), which meets all of applicant's limitations. Horne '226 also teaches that the metal layer deposits on both side of the substrate as shown in Fig. 12 (col. 5, lines 9-42, col. 7, lines 42-50 and col. 8, lines 11-27).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 7-8 are, as best understood rejected under 35 U.S.C. 103(a) as being unpatentable over Horne '226 in view of Grabau (US PAT. 6,147,662).

Horne '226 teaches all the claimed invention as set forth above exception of material used for the substrate. Grabau '662 teaches Radio frequency identification elements having a substrate made by a paper web for producing inexpensive RFID elements (col. 1, lines 20-32 and col. 2, lines 20-29). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify a dielectric substrate of Horne '226 by a paper web for the substrate as taught

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by Grabau '662 for the purpose of enhancing simplicity and speed of the construction of the RF product and reducing cost for the production.

Allowable Subject Matter

17. Claims 22-25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Moren (US PAT. 6,281,842), Vega et al. (US PAT. 6,265,977), Openlander (US PAT. 5,977,931), Strickland (US PAT. 5,952,971), Ross (US PAT. 5,830,529), Wall (US PAT. 5,463,404), Ghaem et al. (US PAT. 5,381,137), Weber (US PAT. 5,367,308), and Jensen et al. (US PAT. 5,245,745) are cited to further show the state of the art with respect to a method of manufacturing a radio frequency antenna.

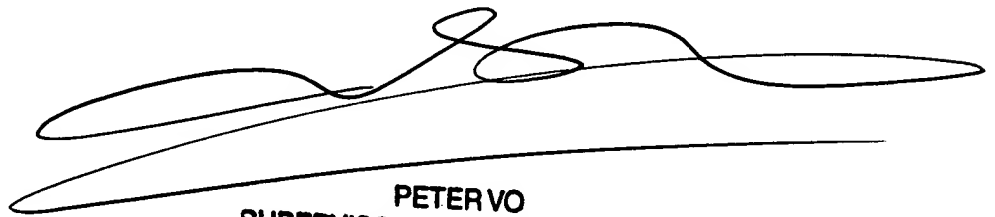
Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D Kim whose telephone number is 703-308-8356. The examiner can normally be reached on Monday-Friday between 6:00 AM to 2:00 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-9835 for regular communications and 703-305-9835 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5648.

pdk
May 15, 2002



**PETER VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700**